

中国苔草属菱形果组新资料(2)*

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NEW MATERIAL OF CAREX SECTION RHOMBOIDALES FROM CHINA(2)

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Key words *Carex* section Rhomboidales; *C. kaoi*; *C. nanchuanensis*; *C. cheniana*; *C. funingensis*; *C. pseudo-laticeps*; *C. kuchunensis*; *C. longerostrata* var. *hoi*; *C. simulans* var. *densiflora*; *C. manca* subsp. *jiuhuaensis*; *C. manca* subsp. *wichurai*

关键词 苔草属菱形果组; 高氏苔草; 南川苔草; 陈氏苔草; 富宁苔草; 弥勒山苔草; 古城苔草; 城湾苔草(变种); 密花相仿苔草(变种); 九华山苔草(亚种); 澳门苔草(亚种)

1 高氏苔草 新种 图 1:1~5

Carex kaoi Tang et Wang in herb. sp. nov. TYPE: Guangdong(广东), Ruyuan(乳源), at the margins of forests, 1933-05-13, X. P. Gao(高锡朋)52564(holotype, PE).

Haec species *C. hastatae* Kükenth. affinis, sed culmis 7~13 cm altis, foliis 10~15 mm latis differt.

Herba perennis. Rhizoma breve, lignosum. Culmus lateralis, 7~13 cm altus, compresso-triqueter, laevis, flexus, basi vaginis 3~4 aphyllis viridibus obtectus. Folia culmo multo longiora 10~15 mm lata, plana, marginibus scabra, acuminata. Bractae vaginantae, breviter laminiferae, spiculae 3~4, approximatae, pedunculatae, terminalis staminata, claviformis, 6~8 mm longa; laterales pistillatae 2~3, ovatae, 10 mm longae, 7 mm latae, sub-laxi-(5~7) florum. Squamae pistillatae ovato-lanceolatae, flavo-pallidae, dorso viriditrinerves, nervis in aristam excurrentes. Utriculi squamas superantes, oblique patentes, rhomboidales, obtuse trigoni, 7~8 mm longi, papyracei, flavo-virides, glabri, multinerves, basi attenuati, apice in rostrum 2.5 mm longum, bidentatum sensim abeuntes. Nux arcte inclusa rhomboidali-ellipsoidea, trigona, ca. 5 mm longa, atro-purpurea, medio constricta, curvatim stipitata, apice in rostrum 1 mm longum abrupte contracta. Stylus basi subincrassatus. Stigmata 3.

多年生草本。根状茎短,木质。秆侧生,高7~13 cm,扁三棱形,平滑,弯曲,基部具3~4枚无叶片的绿色叶鞘。叶极长于秆,宽10~15 mm,平张,边缘粗糙,先端渐尖。苞片短叶状,具鞘。小穗3~4个,彼此靠近,具小穗柄,顶生一个雄性,棍棒状,长6~8 mm;侧生雌小穗2~3个,卵形,长10 mm,宽7 mm,花稀疏(5~7朵)。雌花鳞片卵状披针形,黄白色,背面3脉绿色延伸成芒尖。果囊长于鳞片,斜展,菱形,钝三棱形,长7~8 mm,纸质,黄绿色,无毛,具多脉,基部渐狭,上部渐缩成长喙,喙长2.5 mm,口具2齿。小坚果紧

* 国家自然科学基金资助重大项目,“三志”编研内容之一。

1998-06-17 收稿,1998-08-01 收修改稿。

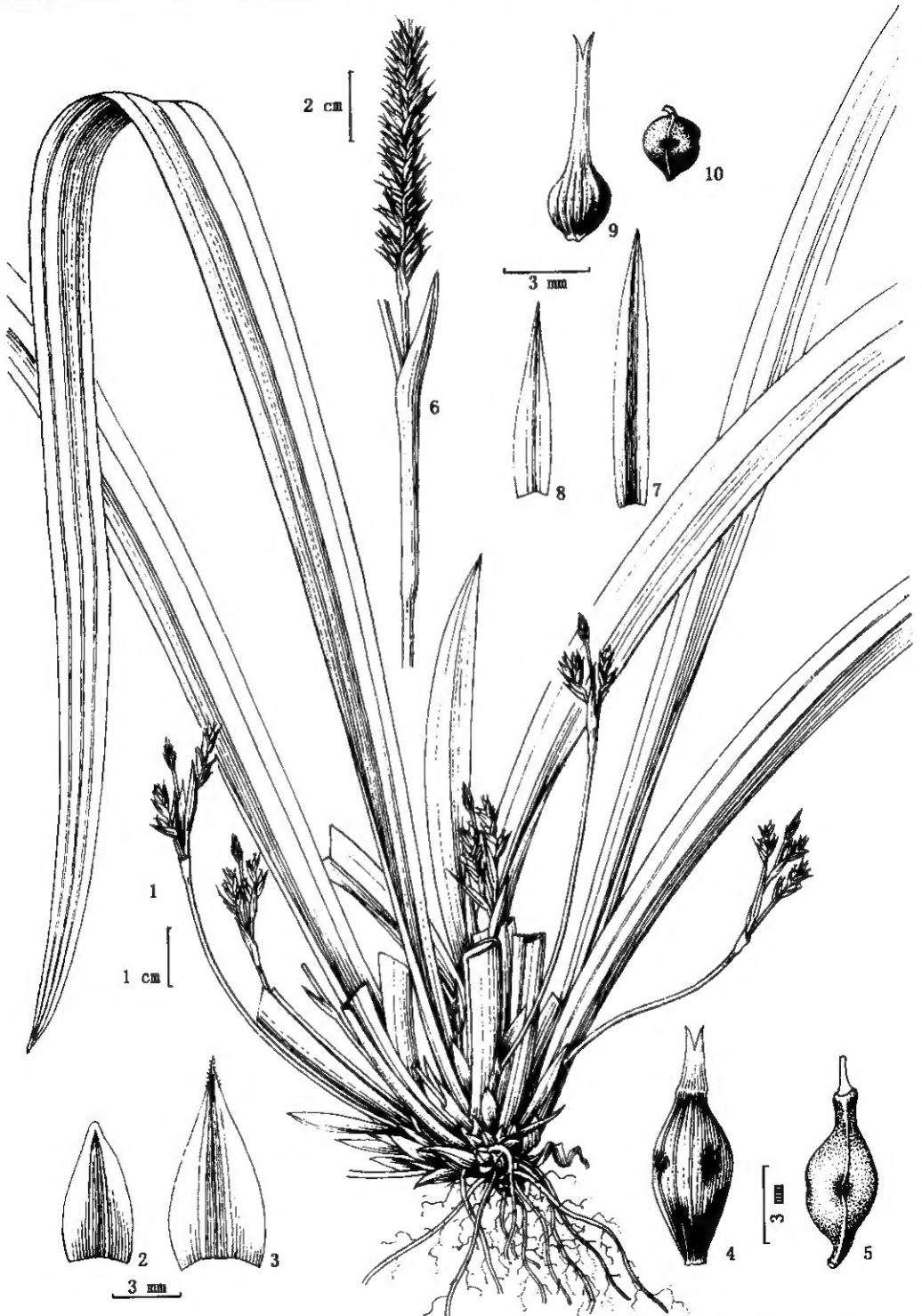


图1 高氏苔草 1. 植株; 2. 雄花鳞片; 3. 雌花鳞片; 4. 果囊; 5. 小坚果。6~10. 南川苔草 6. 雌小穗; 7. 雄花鳞片; 8. 雌花鳞片; 9. 果囊; 10. 小坚果。(王金凤 绘, 冀朝楨 抄)

Fig. 1 1~5. *Carex kaoi* 1. Plant; 2. Staminate scale; 3. Pistillate scale; 4. Utricle; 5. Nut. 6~10. *C. nanchuanensis* 6. Pistillate spike; 7. Staminate scale; 8. Pistillate scale; 9. Utricle; 10. Nut.

包于果囊中,菱状椭圆形,三棱形,长约 5 mm,黑紫色,中部棱边缢缩,基部具弯柄,先端急缩成长喙,喙长约 1 mm;花柱基部稍变粗,柱头 3。

本种与戟叶苔草 *C. hastata* Kükenth. 相近,不同在于秆较矮,高 7~13 cm。叶宽 10~15 mm。

2 南川苔草 新种 图 1:6~10

Carex nanchuanensis Chü in herb. sp. nov. TYPE: Sichuan(四川), Nanchuan(南川), in grassy, rocky places, alt. 2050 m, 1935-06-12, K. L. Chü 1298(holotype, PE).

Proxima *C. thibeticae* Franch., a qua spiculis pistillatis interdum apice floribus staminatis paucis instructis, utriculis subglobosis, nervis prominentibus differt.

Herba perennis. Rhizoma breve, lignosum, firmum. Culmus lateralis, 20~35 cm altus, compresso-triqueter, laevis, basi vaginis atro-brunneis in fibras solutis obtectus. Folia culmo longiora 1.2~1.8 mm lata, plana, viridia, supra marginibus scabra. Bractee longe vaginantae, breviter laminiferae, marginibus scabrae. Spiculae 4~5, terminalis staminata, claviformi-cylindrica, 2.2~3 cm longa, laterales pistillatae 3~4, interdum apice floribus staminatis paucis instructis, cylindricae, 4~5.5 cm longae, 1.5 cm latae, densiflorae, pedunculatae erectae. Squamae pistillatae lanceolatae, rigidae ca. 6 mm longae, flavo-pallidae, dorso viridi-trinerves nervis apice in mucronem excurrentes. Utriculi squamis longiores, oblique patentes, subglobosi (rostro excepto) 6~7 mm longi(rostro incluso), membranacei, flavo-virides, parce pubescentes, nervibus prominentes, basi roundi, apice in rostrum longum cylindricum ore bidentatum abrupte abeuntes. Nux arcte inclusa subglobosa, trigona, 2 mm longa, medio constricta, inferne lateribus excavata, atro-purpurea, apice in rostrum breve curvum abrupte contracta. Stylus basi haud mcrassatus. Stigmata 3.

多年生草本。根状茎短,木质,坚硬。秆侧生,高 20~35 cm,扁三棱形,平滑,基部叶鞘暗棕色分裂成纤维状。叶长于秆,宽 1.2~1.8 mm,平张,绿色,上部边缘粗糙。苞片短叶状,边缘粗糙,具长鞘。小穗 4~5 个,顶生 1 个雄性,棍棒状圆柱形,长 2.2~3 cm;侧生 3~4 个雌性,有时顶端有少数雄花,圆柱形,长 4~5.5 cm,宽 1.5 cm,花密生,小穗柄直立。雌花鳞片披针形,坚挺,长约 6 mm,黄白色,背面 3 脉深绿色,向顶延伸成短尖。果囊长于鳞片,斜展,近球形(喙除外),长 6~7 mm(连喙),膜质,黄绿色,稍被毛,脉极隆起,基部圆形,上部急缩成长喙,喙圆筒形,口具 2 齿。小坚果紧包于果囊中,近球形,三棱形,长 2 mm,棱边中部缢缩,下部侧面凹陷,暗紫色,顶端喙短,弯曲;花柱基部不膨大,柱头 3。

本种与藏苔草 *C. thibetica* Franch. 相近,但雌小穗顶端有时具少数雄花。果囊近球形。脉极隆起而不同。

3 陈氏苔草 新种 图 2:1~5

Carex cheniana Tang et Wang in herb. sp. nov. TYPE: Zhejiang(浙江), Longquan(龙泉), mountain slope, under forests, 1934-05-18, S. Chen(陈氏)3173(holotype, PE).

Affinis *C. saxicolae* Tang et Wang, a qua utriculis squamis brevioribus, nucis rostro curvo differt.

Herba perennis. Rhizoma breve. Culmus 40~60 cm altus, triqueter, laevis. Folia culmo longiora vel breviora, 5~9 mm lata, plana, marginibus revoluta, superne scabra, apice sensim attenuata. Bractee foliaceae longe vaginantae. Spiculae 4~5, remotae, terminalis staminata, claviformis, 1~2.8 cm longa; laterales pistillatae 3~4, apice floribus staminatis paucis instructis, cylindricae, 3.5~6 cm longae, 5~8 mm latae, densiflorae. Squamae pis-

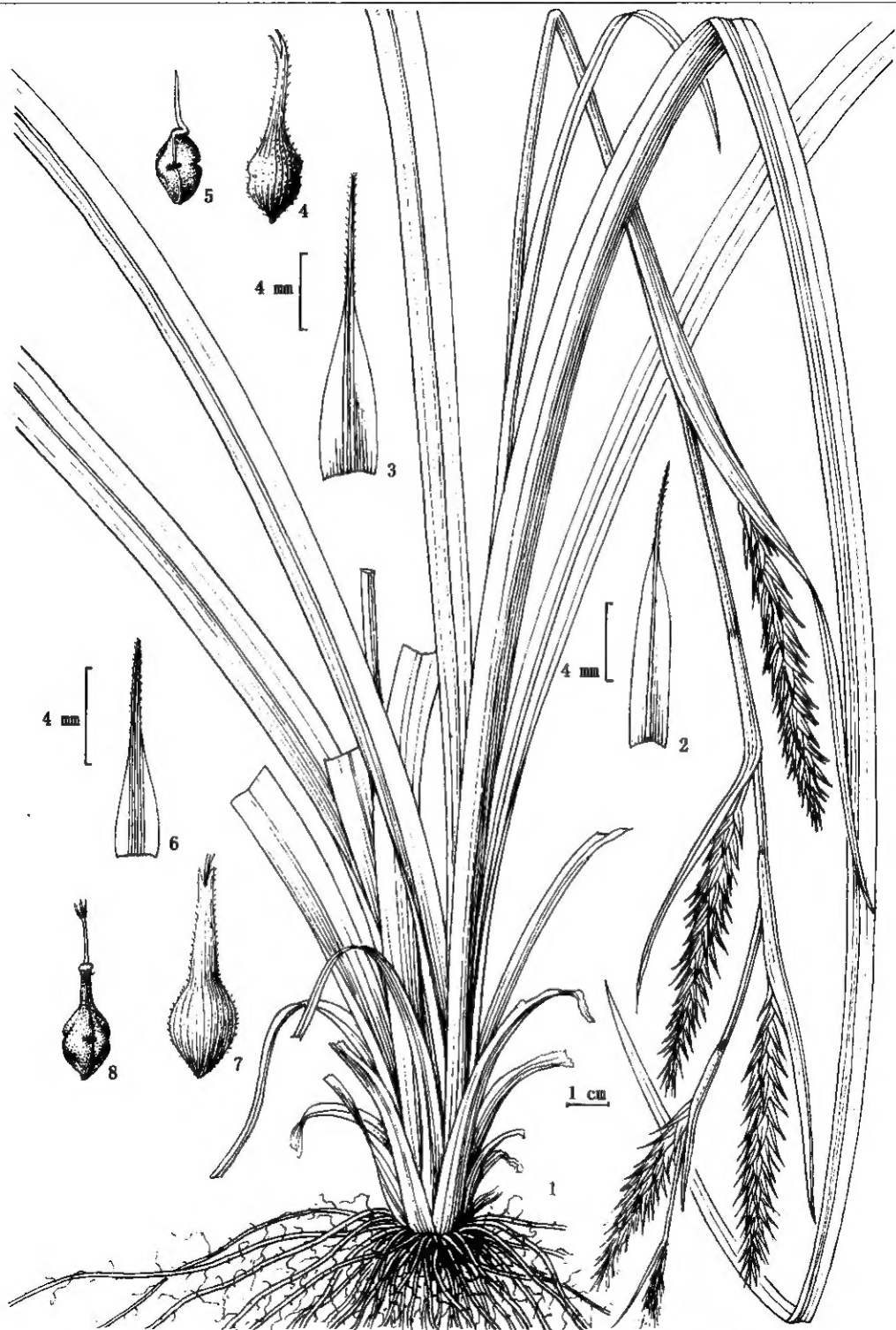


图2 陈氏苔草 1. 植株; 2. 雄花鳞片; 3. 雌花鳞片; 4. 果囊; 5. 小坚果。6~8. 富宁苔草 6. 雌花鳞片; 7. 果囊; 8. 小坚果。(王金凤 绘, 冀朝祯 抄)

Fig. 1 1~5. *Carex cheniana* 1. Plant; 2. Staminate scale; 3. Pistillate scale; 4. Utricle; 5. Nut.
6~8. *C. funingensis* 6. Pistillate scale; 7. Utricle; 8. Nut.

tillatae ovato-lanceolatae, 7.5 ~ 10 mm longae, nitidae, glabrae, pallidae, dorso viridi-trinerves nervis apice in aristam longam scabram excurrentes. Utriculi squamis breviores, oblique patentes, rhomboidali-ellipsoidei (rostrum excepto), trigoni, 7 ~ 7.5 mm longi (rostrum incluso), coriacei, fulvi, parce pubescentes, multinerves, basi attenuati, apice in rostrum 4 mm longum ore profunde bidentatum abrupte abeuntes. Nux arcte inclusa rhomboidali-ellipsoidea, trigona, 3 mm longa, medio constricta, inferne lateribus concavis, curvatim stipitata, apice in rostrum breve curvum abrupt contracta. Stylus basi subincrassatus. Stigmata 3.

多年生草本。根状茎短, 秆高 40 ~ 60 cm, 三棱形, 平滑。叶长于或短于秆, 宽 5 ~ 9 mm, 平张, 边缘反卷, 上部边缘粗糙, 先端渐狭。苞片叶状, 具长鞘。小穗 4 ~ 5 个, 顶生 1 个雄性, 棍棒状圆柱形, 长 1 ~ 2.8 cm; 侧生 3 ~ 4 个雌性, 顶端有雄花, 圆柱形, 长 3.5 ~ 6 cm, 宽 5 ~ 8 mm, 花密生。雌花鳞片卵状披针形, 长 7.5 ~ 10 mm, 光亮, 无毛, 苍白色, 背面 3 脉绿色延伸成长芒。果囊短于鳞片, 斜展, 菱状椭圆形 (喙除外), 三棱形, 长 7 ~ 7.5 mm (连喙), 草质, 黄褐色, 被疏柔毛, 具多脉, 基部渐狭, 上部急缩成长喙, 喙长 4 mm, 口具 2 齿。小坚果紧包于果囊中, 菱状椭圆形, 三棱状, 长 3 mm, 中部棱上缢缩, 下部侧面凹陷, 具弯曲的柄, 顶端急缩成短喙, 喙弯曲; 花柱基部稍膨大, 柱头 3。

本种与岩生苔草 *C. saxicola* Tang et Wang 相近, 但果囊短于鳞片。小坚果喙弯而不同。

4 富宁苔草 新种 图 2:6~8

Carex funingensis Tang et Wang in herb. sp. nov. TYPE: Yunnan (云南), Funing (富宁), under dense woods, alt. 1100 m, 1940-04-12, C. W. Wang (王启无) 88389 (holotype, PE).

Species *C. harlandii* Boott affinis, sed spicula pistillata 1, squamis pistillatis ovatis, utriculis parce pubescentibus differt.

Herba perennis. Rhizoma breve, lignosum. Culmus lateralis, 40 cm altus, compresso-triqueter, laevis, basi vaginis atro-brunneis in fibras solutis obtectus. Folia culmo longiora, 7 ~ 9 mm lata, plana, supra vel marginibus scabra, apice attenuata. Bractee foliaceae haud vaginantae. Spicula pistillatae 1, cylindrica, 5.5 cm longa, ca. 1 cm lata, pedunculata. Squamae pistillatae lanceolatae, 6 ~ 8 mm longae, flavo-pallidae, dorso viridi-trinerves nervis apice in aristam longam scabram excurrentes. Utriculi squamas superantes, oblique patentes, ovati (rostrum excepto), 7 ~ 7.5 cm longi (rostrum incluso), papyracei, virides, parce pubescentes, prominentes multinerves apice in rostrum longum ore profunde bidentatum abrupte abeuntes. Nux arcte inclusa, ovata, trigona, 4 mm longa, fulva, medio constricta, inferne lateribus excavata, breve curvatim stipitata, apice in rostrum 1.5 mm longum, cylindricum, apice annulatum abrupte desinens. Stylus basi haud incrassatus. Stigmata 3.

多年生草本。根状茎短, 木质。秆侧生, 高达 40 cm, 扁三棱形, 平滑, 基部具暗褐色细裂成纤维状的叶鞘。叶长于秆, 宽 7 ~ 9 mm, 平张, 表面粗糙, 上部边缘具细齿, 先端渐狭。苞片叶状, 无鞘。小穗 1 个, 雌性, 顶端无雄花, 圆柱状, 长 5.5 cm, 宽约 1 cm, 具小穗柄。雌花鳞片披针形, 长 6 ~ 8 mm, 黄白色, 背面 3 脉绿色, 向顶渐狭成粗糙长芒。果囊长于鳞片, 斜展, 卵形 (喙除外), 长 7 ~ 7.5 mm (连喙), 纸质, 绿色, 被稀疏柔毛, 具多条隆起的脉, 先端急缩成长喙, 口具 2 长齿。小坚果紧包于果囊中, 卵形, 三棱状, 长约 4 mm, 黄褐色, 中部棱边缢缩, 下部侧面凹陷, 基部柄弯曲, 上部急缩成喙, 圆柱形, 喙长 1.5 mm,

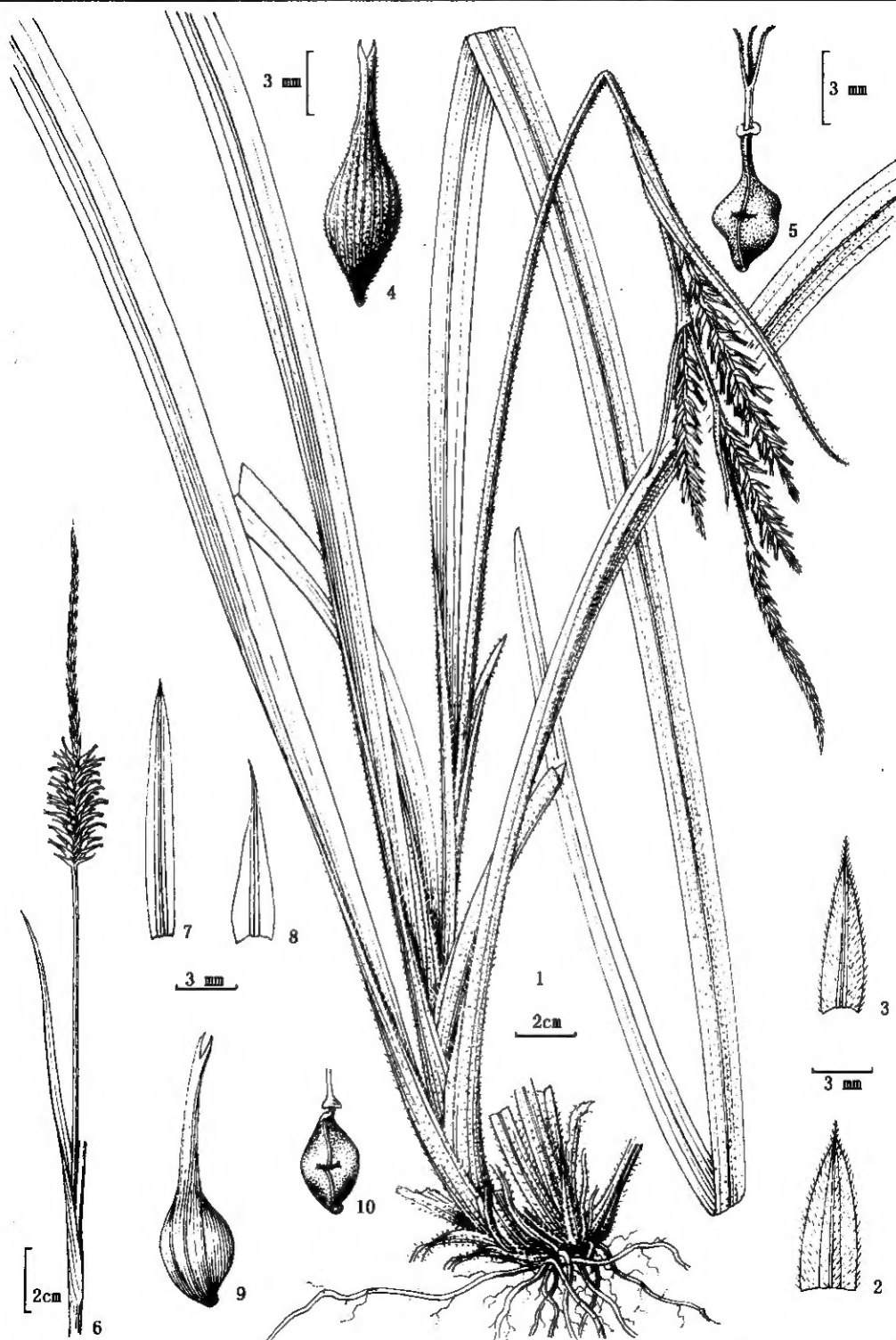


图3 弥勒山苔草 1. 植株; 2. 雄花鳞片; 3. 雌花鳞片; 4. 果囊; 5. 小坚果。6~10. 古城苔草 6. 侧生小穗; 7. 雄花鳞片; 8. 雌花鳞片; 9. 果囊; 10. 小坚果。(王金凤 绘, 冀朝桢 抄)

Fig.3 1~5. *Carex pseudo-laticeeps* 1. Plant; 2. Staminate scale; 3. Pistillate scale; 4. Utricle; 5. Nut. 6~10. *C. kuchunensis* 6. Lateral spike; 7. Staminate scale; 8. Pistillate scale; 9. Utricle; 10. Nut.

顶端膨大;花柱基部不膨大,柱头 3。

本种与长囊苔草 *C. harlandii* Boott 相近,但小穗 1 个,雌性,雌花鳞片卵形,果囊被稀疏柔毛易于区别。

5 弥勒山苔草 新种 图 3:1~5

Carex pseudo-laticeps Tang et Wang in herb. sp. nov. TYPE: Hongkong (香港), Milesan(弥勒山) on rocks, C. L. Tso(左景烈)20216(holotype, PE).

Haec species *C. laticipi* C. B. Clarke ex Franch. affinis, sed foliis 6~10 mm latis, spiculis pistillatis 3, nucis rostro erecto differt.

Herba perennis. Rhizoma breve, lignosum. Culmus 33 cm altus, triqueter, pilosus, basi vaginis atro-brunneis in fibras solutis obtectus. Folia culmo longiora, 6~10 mm lata, plana, pubescentia, apice attenuata. Bracteae vaginantae, breviter laminiferae, pilosae. Spiculae 4, approximatae, terminalia staminata, lineari-cylindrica, 3.5 cm longa, longe pedunculata, pilosa; laterales pistillatae 3, apice floribus staminatis instructae, cylindricae, 2.5~4.2 cm longae, densiflorae, pedunculatae, pilosae. Squamae pistillatae lanceolatae, ca. 5 mm longae, flavo-pallidae, pilosae, dorso viridi-trinerves nervis apice in mucronem excurrentes. Utriculi squamas superantes, oblique patentes, ovoideo-ellipsoidei, trigoni, 8 mm longi, subcoriacei, fulvi, pilosi, multinerves, basi attenuati, apice in rostrum longum ore profunde bidentatum abrupte abeuntes. Nux arcte inclusa, subrhomboidali-obvoidea, 3~4 mm longa, atro-purpurea, medio constricta, inferne lateribus excavata, oblique stipitata, apice in rostrum 1.5 mm longum erectum abrupte abeuntes. Stylus basi subincrassatus. Stigmata 3.

多年生草本。根状茎短,木质。秆高 33 cm,三棱形,被柔毛,基部具暗褐色分裂成纤维状的叶鞘。叶长于秆,宽 6~10 mm,平张,叶两面被柔毛,顶端渐狭。苞片短叶状,被柔毛,具鞘。小穗 4 个,彼此靠近,顶生 1 个雄性,线状圆柱形,长 3.5 cm;小穗柄较长,被柔毛;侧生 3 个雌性,顶端有雄花,圆柱形,长 2.5~4.2 cm,花密生,小穗柄被柔毛。雌花鳞片披针形,长约 5 mm,黄白色,被柔毛,背面 3 脉绿色延伸成短尖。果囊长于鳞片,斜展,卵状椭圆形,三棱形,长 8 mm,近革质,黄褐色,密被柔毛,具多脉,基部渐狭,上部急缩成长喙,喙口具 2 齿。小坚果紧包于果囊中,近菱状倒卵形,长 3~4 mm,黑紫色,中部棱边缢缩,下部侧面凹陷,基部柄歪,先端急缩成直立的长喙,喙长 1.5 mm,花柱基部膨大,柱头 3。

本种与弯喙苔草 *C. laticeps* C. B. Clarke ex Franch. 相近,不同在于叶宽 6~10 mm,雌小穗 3 个,小坚果喙直而异。

6 古城苔草 新种 图 3:6~10

Carex kuchunensis Tang et Wang in herb. sp. nov. TYPE: Guangxi(广西), on rocks by stream or under woods, alt. 900 m, s. coll. 21234(holotype, PE), s. coll. 20196(PE).

Affinis *C. brevicuspidi* C. B. Clarke, a qua parte superiore staminata 2/3 spiculae pistillatae lateralis saepe attingente, squamis pistillatae ovato-lanceolatis, stylo basi incrassato differt.

Herba perennis. Rhizoma breve, lignosum. Culmus 50~75 cm altus, compresso-triqueter, laevis, ad basin vaginis atro-brunneis vestitus. Folia culmo longiora, 6~8 mm lata, plana, marginibus scabra, coriacea. Bracteae vaginantae, breviter laminiferae. Spiculae 4~5, remotae, terminalis staminata lineari-cylindrica, 5~7.5 cm longa, longe pedunculata;

laterales 3~4 pistillatae (parte superiore staminata 2/3 spiculae saepe attingenti), cylindricae, 5~7.5 cm longae, pedunculo 1.5~8.5 cm longo. Squamae pistillatae ovato-lanceolatae, apice attenuatae, 5~6 mm longae, fulvo-virides, dorso viridi-trinerves. Utriculi squamas superantes, ovati (rosto excepto), 6~7 mm longi (rostrum incluso), fulvi, coriacei, glabri, multinerves, basi contracri, apice in rostrum 4 mm longum ore profunde bidentatum abrupte abeuntes. Nux arcte inclusa, ovata, trigona, 2.5 mm longa, atro-purpurea, curvatum stipitata, medio constricta, inferne lateribus excavata, apice in rostrum curvum abrupte contracta. Stylus basi incrassatus. Stigmata 3.

多年生草本。根状茎短, 木质。秆高 50~75 cm, 扁三棱形, 平滑, 基部叶鞘深褐色。叶长于秆, 宽 6~8 mm, 平张, 边缘粗糙, 革质。苞片短叶状, 具长鞘。小穗 4~5 个, 远离, 顶端 1 个雄性, 线状圆柱形, 长 7~7.5 cm, 小穗柄长; 侧生小穗雌性 (上部雄花部分常达 2/3) 3~4 个, 圆柱形, 长 5~7.5 cm; 小穗柄长 1.5~8.5 cm。雌花鳞片卵状披针形, 先端渐狭, 长 5~6 mm, 黄绿色, 背面 3 脉绿色。果囊长于鳞片, 卵形 (喙除外), 长 6~7 mm (连喙), 黄褐色, 革质, 无毛, 具多脉, 基部收缩, 上部急缩成长喙, 喙长 4 mm, 口深裂为 2 长齿。小坚果紧包于果囊中, 卵形, 三棱状, 长 2.5 mm, 黑紫色, 具弯柄, 中部棱边缢缩, 下部侧面凹陷, 先端急缩成喙, 喙弯曲, 花柱基部膨大, 柱头 3。

本种与短尖苔草 *C. brevicuspis* C. B. Clarke 相近, 但侧生小穗上部的雄花部分通常长达小穗的 2/3, 雌花鳞片卵状披针形, 花柱基部膨大易于区别。

7 城湾苔草 新变种

Carex longerostrata C. A. Mey. var. **hoi** Chü in herb. var. nov. TYPE: Zhejiang (浙江), 1932-04-19, Y. Y. He (贺贤育) 943 (holotype PE).

Haec varietas a var. *longerostratae* differ utriculis glabris, nucis rostro erecto.

与原变种的区别在于果囊无毛。小坚果的喙直。

8 密花相仿苔草 新变种

Carex simulans C. B. Clarke var. **densiflora** Tang et Wang, in herb. var. nov. TYPE: Sichuan (四川), Xichang (西昌), under woods, alt. 2050 m, 1932-06-25, T. T. YU 1119 (holotype, PE).

A var. *simulanti* differt spiculis pistillatis densifloris, squamis pistillatis marginibus pallidis, aristis longis, nucis rostro longo.

本种与原变种的区别在于雌小穗花密生, 雌花鳞片边缘白色, 具长芒, 小坚果喙长。

9 九华苔草 亚种 新组合

Carex manca Boott subsp. **jiuhuaensis** (S. W. Su) S. Y. Liang, comb. nov.

C. jiuhuaensis S. W. Su in Bull. Bot. Res. 10(4):5. Fig. 1. 1990. TYPE: Anhui (安徽), Jiuhuashan (九华山), Tiantai (天台), 1980-05-13, S. W. Su 80038 (holotype, ANU).

10 澳门苔草 亚种 新组合

Carex manca Boott subsp. **wichurai** (Boeck.) S. Y. Liang, comb. nov.

C. wichurai Boeck. in Bot. Jahrb. 5: 519. 1884. TYPE: Macao (澳门), Wichura no. 1704 (Herb. Mus. Bot. Berlin)

C. manca Boott var. *wichurai* Kükenth. in Engl. Pflanzenr. Heft 38 IV. 20. 629. 1909.